

WE CLAIM:

1. ~~An improvement to a code-division-multiple-access~~  
(CDMA) system employing spread-spectrum modulation, with the  
CDMA system having a base station (BS) with a BS-spread-  
spectrum transmitter and a BS-spread-spectrum receiver, and a  
plurality of remote stations, with each remote station (RS)  
having an RS-spread-spectrum transmitter and an RS-spread-  
spectrum receiver, the method comprising the steps of:

transmitting from said BS-spread-spectrum transmitter  
located at said base station, a broadcast common-  
synchronization channel having a common chip-sequence signal  
common to the plurality of remote stations, the broadcast  
common-synchronization channel having a frame-timing signal;

receiving at a first RS-spread-spectrum receiver the  
broadcast common-synchronization channel, and determining frame  
timing at said first RS-spread-spectrum receiver from the  
frame-timing signal;

transmitting from a first RS-spread-spectrum  
transmitter an access-burst signal, the access-burst signal  
having a plurality of segments, with each segment having a  
preamble followed by a pilot signal, with the plurality of  
segments having a plurality of power levels, respectively;

receiving at said BS spread-spectrum receiver the  
access-burst signal at a detected-power level;

transmitting from said BS-spread-spectrum transmitter

25 to said first RS-spread-spectrum receiver, responsive to the  
access-burst signal, an acknowledgment signal;

receiving at said first RS-spread-spectrum receiver  
the acknowledgment signal; and

30 transmitting from said first RS-spread-spectrum  
transmitter, responsive to the acknowledgment signal, to said  
BS-spread-spectrum receiver, a spread-spectrum signal having  
data.

5 2. The improvement as set forth in claim 1 with the step  
of transmitting from the first RS-spread-spectrum transmitter  
the access-burst signal, including the step of transmitting the  
access-burst signal with the plurality of segments having the  
plurality of power levels increasing sequentially,  
respectively.

5 3. An improvement to a code-division-multiple-access  
(CDMA) system employing spread-spectrum modulation, with the  
CDMA system having a base station (BS) and a plurality of  
remote stations (RS) with each remote station having an RS-  
spread-spectrum transmitter and an RS-spread-spectrum receiver,  
the improvement comprising:

a BS spread-spectrum transmitter located at said  
base station, for transmitting a broadcast common-

10 synchronization channel having a common chip-sequence signal  
common to the plurality of remote stations, the broadcast  
common-synchronization channel having a frame-timing signal;

15 a first RS-spread-spectrum receiver, located at a  
first remote station of the plurality of remote stations, for  
receiving the broadcast common-synchronization channel, and  
determining frame timing at said first RS-spread-spectrum  
receiver from the frame-timing signal;

20 a first RS-spread-spectrum transmitter, located at  
said first remote station of said plurality of remote stations,  
for transmitting an access-burst signal, the access-burst  
signal having a plurality of segments, with each segment having  
a preamble followed by a pilot signal, with the plurality of  
segments having a plurality of power levels, respectively;

25 said BS spread-spectrum receiver for receiving the  
access-burst signal at a detected-power level;

said BS-spread-spectrum transmitter for transmitting  
to said first RS-spread-spectrum receiver, responsive to  
receiving the access-burst signal, an acknowledgment signal;

said first RS-spread-spectrum receiver for receiving  
the acknowledgment signal; and

30 said first RS-spread-spectrum transmitter, responsive  
to the acknowledgment signal, for transmitting to said BS-  
spread-spectrum receiver, a spread-spectrum signal having data.

4. The improvement as set forth in claim 3 with said first RS-spread-spectrum transmitter including transmitting the access-burst signal with the plurality of segments having the plurality of power levels increasing sequentially, respectively.

Good  
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